



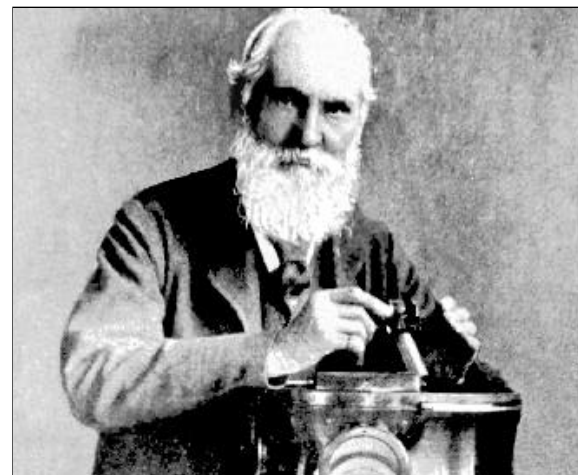
GETTING COMFORTABLE WITH THE ELECTRIC HEAT PUMP

What Exactly Is An Electric Heat Pump Anyway?

An electric heat pump is one of the least expensive ways to heat and cool a home in our desert climate. It's highly efficient because it doesn't manufacture the heat it distributes. Instead, it finds heat in the outside air and "pumps" or "moves" it into your home in the winter, saving as much as 30 percent on heating costs when compared to a gas furnace. And with a flip of a switch, it works as an air conditioner by pumping heat from inside the house to the outside, providing efficient year-around comfort.

How Can It Do That?

About 100 years ago, a British scientist by the name of Lord Kelvin discovered the concept of absolute zero. Which is actually about 450 degrees Fahrenheit **below** zero. It's the theoretical point at which absolutely no heat is present. Any temperature above absolute zero means there is heat present that can be used. So, during the Valley's mild winters, when temperatures rarely dip below freezing, there's plenty of heat in the air you can use. The higher the temperature, the more heat that's available.



THE MAJOR PARTS OF A HEAT PUMP.

HEAT PUMP

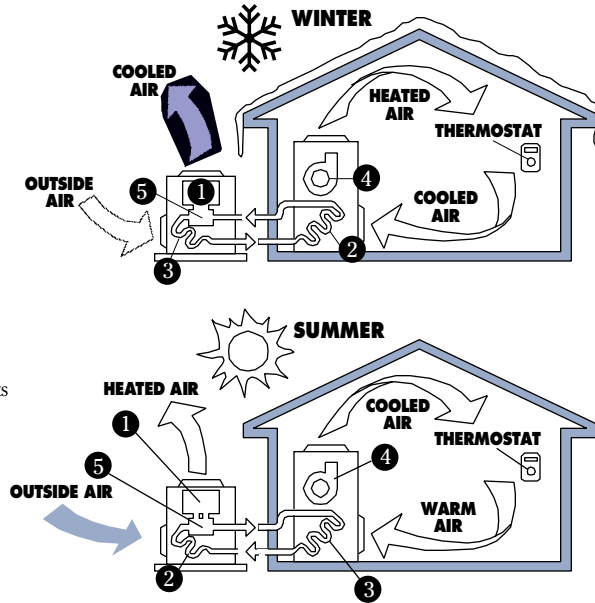
❶ **COMPRESSOR:** This increases the pressure of the refrigerant so that it will accept the maximum amount of heat from the air.

❷ **CONDENSER:** Coils that move heat to or from the outside air.

❸ **EVAPORATOR:** Coils that move heat to or from the air inside the home.

❹ **AIR HANDLER:** Fan that blows the air into the ducts of the home. NOTE: Components 1, 2, 3 and 4 are found in all standard air conditioners.

❺ **REVERSING VALVE:** Changes the heat pump from air conditioning to heating, and vice versa. This is not part of the thermostat.



The way the heat pump works is basic physics. Without getting too technical, it's called **heat transference**. It works on the principle that heat seeks equilibrium when it comes in contact with cold. In other words, heat goes to cold. For instance, when you're holding a cold can of soda, your hand feels like it's getting cold. But actually, the heat is leaving your hand and heating up the soda.

Another example of heat transference is the warm air you may have felt blowing out of the bottom of your refrigerator. That's what happens when your refrigerator pumps the heat out of items you put in there.

In simple terms, what a heat pump does is take heat from the outside air and move it inside the house. The only energy used is the relatively small amount of electricity it takes to transfer the heat.

It still may sound crazy, but it does work. And the fact that the electric heat pump can take as much as 30 percent off your heating costs compared to a gas furnace is really all you need to know.

When you want cool air, it's the same principle, only reversed. Just flip a switch on the thermostat and the heat pump takes the hot air from inside and moves it outside, leaving cool air in the house.

All Around Comfort.

A high-efficiency electric heat pump does a great job of providing continuous comfort. Gas furnaces often blast certain areas with heat causing uncomfortable hot spots. An electric heat pump, on the other hand, provides a more continuous flow of heat giving you an even, comfortable temperature.

To make you feel even more comfortable, the electric heat pump has no open flame to worry about. There is no possibility of fuel leaks or carbon monoxide poisoning.

What To Look For.

The Seasonal Energy Efficiency Ratio or SEER rating is an important consideration when looking for an electric heat pump. The SEER represents how efficiently a unit operates. Typically, the higher the SEER rating, the more efficiently it operates and, the more energy you save.

Along with the SEER rating, you need to determine what size the electric heat pump needs to be. A contractor can help you with this. Your contractor should take into consideration the square footage of your home, the amount of ceiling and wall insulation, window area and other crucial variables. We suggest you make sure your contractor makes these calculations. Also, keep in mind, the lowest price does not always mean the best deal. Service, proper sizing and quality of insulation make a difference in long-term operating costs. Don't be afraid to ask your contractor questions because all heat pumps are not alike.

There's No Trick To The Money You Can Save.

The electric heat pump may seem like magic, but when you consider all the money you could save, it's really quite practical. And, the only thing magic about it is how it can shrink your utility bills.

Rebates From SRP.

Not only is the electric heat pump safe, clean, convenient, comfortable and efficient, but if you have a gas furnace and replace it with a "high efficiency" electric heat pump, you may qualify for a rebate with the SRP Heat Pump Incentive.

When you combine an electric heat pump with SRP's low rates, you have the ideal way to heat and cool in our desert climate. Which is ultimately what you want, isn't it?

For more details about the electric heat pump and the SRP Heat Pump Incentive, call 236-4444.

Heat pumps are an innovative, yet practical solution to saving you energy and money. It's just another way SRP delivers more than power.

ELECTRIC + SRP
HEAT PUMP LOW RATES = IDEAL WAY TO
HEAT & COOL



96-8493